

WHAT IS CLAIMED IS:

1. A computer-implemented method, comprising:

decompressing a trie, including:

1) evaluating a node of the trie;

5 2) determining that the node includes a tag
flag having a setting indicative of a multiple tag
field attached to the node; and

 3) evaluating each setting in the multiple tag
field, and for each setting that indicates a tag,
10 associating the node with a category corresponding
to that tag.

2. The method of claim 1 wherein decompressing the trie
further comprises, evaluating a tag information field to
15 determine that the trie was constructed to have at least one
node with a multiple tag field.

3. The method of claim 1 wherein the multiple tag field
comprises a bitmask, and wherein evaluating each setting in
20 the multiple tag field comprises checking the value of each
bit in the bitmask.

4. The method of claim 3 further comprising, evaluating information in a header of the trie to determine a size of the bitmask.

5 5. The method of claim 1 wherein decompressing the trie further comprises, checking a value field to determine which tags have values associated therewith.

6. The method of claim 1 wherein at least one of the
10 tags has a value associated therewith, and further comprising, checking a value size array field to determine a size for each value associated with a tag.

7. The method of claim 1 wherein decompressing the trie
15 further comprises, checking a value size array field to determine which tags have values associated therewith.

8. The method of claim 7 further comprising, checking the value size array field to determine a size for each value
20 associated with a tag.

9. The method of claim 1 wherein the node includes at least one partial enumeration count.

10. The method of claim 1 wherein the node includes a partial enumeration count for at least one of the tags.

11. A computer-readable medium having computer-
5 executable instructions for performing the method of claim 1.

12. A computer-implemented method for decompressing a trie to locate a desired node, comprising:

(a) receiving, as a received value, data corresponding to
10 the desired node in the trie;

(b) searching the trie for the desired node, including selecting, as a selected node, a node from a plurality of nodes each having a partial enumeration count, each partial enumeration count corresponding to how many nodes under that
15 node are tagged with a certain information flag;

(c) evaluating the partial enumeration count of the selected node with respect to the received value to determine if the selected node or a node under the selected node is the desired node; and

20 (i) when the partial enumeration count indicates that the desired node is not the selected node or a node under the selected node, selecting another node having a partial enumeration count from the plurality and repeating step (c); or

(ii) when the partial enumeration count indicates that the desired node is the selected node or a node under the selected node, returning data corresponding to the desired node from the selected node or a node under the selected node.

13. The method of claim 12 further comprising evaluating a tag information field having information about the structure of the trie.

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14. The method of claim 12, wherein returning data corresponding to that node comprises returning a letter of a word.

15 15. The method of claim 12 wherein the nodes further include a global enumeration count.

16. The method of claim 12 wherein searching the trie for the desired node includes maintaining a count of nodes that have been searched or effectively searched.

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17. A computer-readable medium having computer-executable instructions for performing the method of claim 12.